LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Previously Presented) A compound having the formula I

$$X^2$$
 X^1
 Y^1
 X^2
 Z
 UR^1
 UR^1
 UR^1

wherein

 X^1 , X^2 , Y^1 , and Y^2 are, independently, hydrogen, fluorine, a hydroxyl group, a branched or straight chain C_1 to C_{25} alkyl group, OR^2 , $OC(O)R^3$, or $NC(O)R^3$; each U is, independently, oxygen, sulfur, or NR^1 ;

V is not present or when V is present, V comprises oxygen or sulfur;

W is oxygen or sulfur:

Z is oxygen, sulfur, NR1, CHF, or CHOR2;

each R^1 is, independently, hydrogen, a branched or straight chain C_1 to C_{25} alkyl group, or a cationic counterion;

 R^2 is hydrogen, a branched or straight chain C_1 to C_{25} alkyl group, a cycloalkyl group, a heterocycloalkyl group, an aryl group, a heteroaryl group or a protecting group;

 R^3 is a branched or straight chain C_1 to C_{25} alkyl group, a cycloalkyl group, a heterocycloalkyl group, an aryl group, a heteroaryl group, or an oleate group, or a pharmaceutically acceptable salt or ester thereof.

wherein when Y¹ and Y² are different groups, the stereochemistry at carbon a is greater than 95% of one enantiomer with respect to the other enantiomer, and

wherein the compound having the formula I is not 1-acyl-sn-glycerol 3-phosphate and 2-acyl-sn-glycerol 3-phosphate, and

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- wherein when V is not present, W is oxygen, X^1 and Y^1 are hydrogen, and X^2 is hydroxyl, then Y^2 is not hydroxyl.
- (Previously Presented) The compound of claim 1, wherein each U and W is oxygen and V is not present.
- (Original) The compound of claim 2, wherein Z is oxygen, X¹ comprises hydrogen, and X² is fluorine.
- (Original) The compound of claim 3, wherein Y¹ is hydrogen, Y² comprises OC(O)R³, wherein R³ is a branched or straight chain C₁ to C₂₅ alkyl group, and R¹ is hydrogen.
- 5. (Canceled)
- (Original) The compound of claim 2, wherein Z is oxygen, Y¹ is hydrogen, and Y² is fluorine.
- (Original) The compound of claim 6, wherein X¹ is hydrogen, X² comprises OC(O)R³, wherein R³ is a branched or straight chain C₁ to C₂₅ alkyl group, and each R¹ is hydrogen.
- (Previously Presented) The compound of claim 2, wherein Z comprises CHF, Y¹ is hydrogen, and Y² is a hydroxyl group.
- (Original) The compound of claim 8, wherein X¹ is hydrogen, X² is OC(O)R³, wherein R³ is a branched or straight chain C₁ to C₂₅ alkyl group, and each R¹ is hydrogen.
- 10. (Canceled)
- (Original) The compound of claim 8, wherein X¹ is hydrogen, X² is OC(O)R³, wherein R³ is a branched or straight chain C₁ to C₂₅ alkyl group, and each R¹ is ethyl.
- 12. (Canceled)
- (Original) The compound of claim 2, wherein Z is CHF, Y¹ is hydrogen, and Y² is an alkyl group.
- 14. (Original) The compound of claim 13, wherein X¹ is hydrogen, X² is a silyl group, a hydroxyl group, or OC(O)R³, wherein R³ is a branched or straight chain C₁ to C₂₅ alkyl group, and each R¹ is ethyl or each R¹ is hydrogen.
- 15. (Original) The compound of claim 2, wherein Z is CHF, Y^1 is hydrogen, and Y^2 is an $OC(O)R^3$, wherein R^3 is a branched or straight chain C_1 to C_{25} alkyl group.
- 16. (Canceled)

- 17. (Original) The compound of claim 89, wherein Z is CF₂.
- 18. (Original) The compound of claim 17, wherein Y¹ is hydrogen, Y² comprises OC(O)R³, wherein R³ is a branched or straight chain C₁ to C₂₅ alkyl group, and each R¹ is an ethyl group or a sodium ion.
- (Original) The compound of claim 18, wherein X¹ is hydrogen and X² is OH or OC(O)R³, wherein R³ is a branched or straight chain C₁ to C₂₅ alkyl group.
- 20. (Original) The compound of claim 17, wherein X^1 is hydrogen, X^2 is $OC(O)R^3$, wherein R^3 is a branched or straight chain C_1 to C_{25} alkyl group, and each R^1 is an ethyl group or a sodium ion.
- 21. (Original) The compound of claim 20, wherein Y^1 is hydrogen and Y^2 is OH or $OC(O)R^3$, wherein R^3 is a branched or straight chain C_1 to C_{25} alkyl group.
- 22-72 (Cancelled)
- (Withdrawn) A method for improving wound healing in a subject in need of such improvement, comprising contacting the wound of a mammal with a compound of claim 1.
- 74. (Withdrawn) A method for treating or preventing in a subject a disease comprising administering to the subject a compound of claim 1.
- 75. (Withdrawn) The method of claim 74, wherein the disease comprises cancer or diabetes.
- (Canceled)
- (Withdrawn) A method for reducing inflammation or an allergic response in a subject comprising administering to the subject a compound of claim 1.
- (Withdrawn) A method for increasing or altering cardiovascular function in a subject comprising administering to the subject a compound of claim 1.
- (Withdrawn) A method for maintaining or terminating embryonic development in a subject comprising administering to the subject a compound of claim 1.
- (Withdrawn) A method for eliciting or inhibiting platelet aggregation in a subject comprising administering to the subject a compound of claim 1.
- (Withdrawn) A method for increasing or inhibiting cell growth and proliferation in a culture comprising contacting the cells in the culture with a compound of claim 1.

- (Withdrawn) A method of treating or preventing a disease in a subject comprising administering a compound of claim 1 thereof as a PPARy agonist.
- 83. (Withdrawn) A method of treating or preventing a disease in a subject comprising administering a compound of claim 1 to inhibit a lipid phosphatase, lipid kinase, or phospholipase enzyme.
- 84. (Withdrawn) The use of a compound of claim 1 for targeting the discovery of a drug.
- (Withdrawn) A method for growing or proliferating cells in a culture comprising administering to the cells in the culture a compound of claim 1.
- 86. (Withdrawn) A method for determining the activity of lysophosphatidic acid or phosphatidic acid, comprising the steps of:
 - a) measuring the activity of a compound of claim 1; and
 - measuring the same activity of lysophosphatidic acid or phosphatidic acid.
- (Withdrawn) The method of claim 86, wherein the method comprises identifying agonists
 or antagonists of lysophosphatidic acid binding to or activating lysophosphatidic acid
 receptors of the edg class in a cell.
- (Withdrawn) The method of claim 86, wherein the method comprises identifying agonists or antagonists of lysophosphatidic acid binding to or activating lysophosphatidic acid receptors of the non-edg class in a cell.
- 89. (Previously Presented) A compound having the formula I

$$X^{1}$$
 X^{2}
 X^{2}
 X^{2}
 X^{2}
 X^{2}
 X^{3}
 X^{2}
 X^{3}
 X^{4}
 X^{5}
 X^{5

wherein

 X^1, X^2, Y^1 , and Y^2 are, independently, hydrogen, fluorine, a hydroxyl group, OR^2 , $OC(O)R^3$, or $NC(O)R^3$;

Z is CF2:

each R^1 is, independently, hydrogen, a branched or straight chain C_1 to C_{25} alkyl group, or a cationic counterion;

 R^2 is hydrogen, a branched or straight chain C_1 to C_{25} alkyl group, a cycloalkyl group, a heterocycloalkyl group, an aryl group, a heteroaryl group or a protecting group;

 R^3 is a branched or straight chain C_1 to C_{25} alkyl group, a cycloalkyl group, a heterocycloalkyl group, an aryl group, a heterocycloalkyl group,

wherein when Y^1 and Y^2 are different groups, the stereochemistry at carbon a is either R or S.

- (Withdrawn) A method for improving wound healing in a subject in need of such improvement, comprising contacting the wound of a mammal with a compound of claim 89.
- (Withdrawn) A method for treating or preventing in a subject a disease comprising administering to the subject a compound of claim 89.
- 92. (Withdrawn) The method of claim 91, wherein the disease comprises cancer or diabetes.
- 93. (Withdrawn) A method for reducing inflammation or an allergic response in a subject

comprising administering to the subject a compound of claim 89.

- (Withdrawn) A method for increasing or altering cardiovascular function in a subject comprising administering to the subject a compound of claim 89.
- (Withdrawn) A method for maintaining or terminating embryonic development in a subject comprising administering to the subject a compound of claim 89.
- (Withdrawn) A method for eliciting or inhibiting platelet aggregation in a subject comprising administering to the subject a compound of claim 89.
- (Withdrawn) A method for increasing or inhibiting cell growth and proliferation in a culture comprising contacting the cells in the culture with a compound of claim 89.
- (Withdrawn) A method of treating or preventing a disease in a subject comprising administering a compound of claim 89 thereof as a PPARγ agonist.
- (Withdrawn) A method of treating or preventing a disease in a subject comprising administering a compound of claim 89 to inhibit a lipid phosphatase, lipid kinase, or phospholipase enzyme.
- 100. (Withdrawn) The use of a compound of claim 89 for targeting the discovery of a drug.

- (Withdrawn) A method for growing or proliferating cells in a culture comprising administering to the cells in the culture a compound of claim 89.
- 102. (Withdrawn) A method for determining the activity of lysophosphatidic acid or phosphatidic acid, comprising the steps of:
 - a) measuring the activity of a compound of claim 89; and
 - measuring the same activity of lysophosphatidic acid or phosphatidic acid.
- 103. (Withdrawn) The method of claim 102, wherein the method comprises identifying agonists or antagonists of lysophosphatidic acid binding to or activating lysophosphatidic acid receptors of the edg class in a cell.
- 104. (Withdrawn) The method of claim 102, wherein the method comprises identifying agonists or antagonists of lysophosphatidic acid binding to or activating lysophosphatidic acid receptors of the non-edg class in a cell.